

CONTENT ADDRESSABLE DATA STORAGE AND COMPRESSION
FOR SEMI-PERSISTENT COMPUTER MEMORY

ABSTRACT

Content addressable data storage and compression for semi-persistent computer memory including providing a chunk of data that is a quantity of input data; retrieving a memory block from semi-persistent computer memory; searching for a segment of the chunk that matches the memory block; and if a matching segment is found: discarding the matching segment; providing a retrieval key for the memory block as a retrieval key for the matching segment; identifying an unmatched portion of the chunk that does not match the memory block; identifying a free memory block of a file system; storing the unmatched portion semi-persistently in the free memory block; and providing a retrieval key for the unmatched portion.